



■ Features :

- Universal AC input / Full range (up to 305VAC)
- Built-in active PFC function
- High efficiency up to 95%
- Protections: Short circuit / Over current / Over voltage / Over temperature
- Cooling by free air convection
- OCP point adjustable through output cable or internal potentiometer
- IP67 / IP65 design for indoor or outdoor installations
- Three in one dimming function (1~10Vdc or PWM signal or resistance)
- Suitable for LED lighting and street lighting applications
- Compliance to worldwide safety regulations for lighting
- Suitable for dry / damp / wet location
- 5 years warranty (Note.10)



HLG-320H-12 [A] Blank : IP67 rated. Cable for I/O connection.  
 A : IP65 rated. Output voltage and constant current level can be adjusted through internal potentiometer.  
 B : IP67 rated. Constant current level adjustable through output cable with 1~10Vdc or PWM signal or resistance.  
 C : Terminal block for I/O connection. Output voltage and constant current level can be adjusted through internal potentiometer.  
 D (option) : IP67 rated. Timer dimming function, contact MEAN WELL for details.

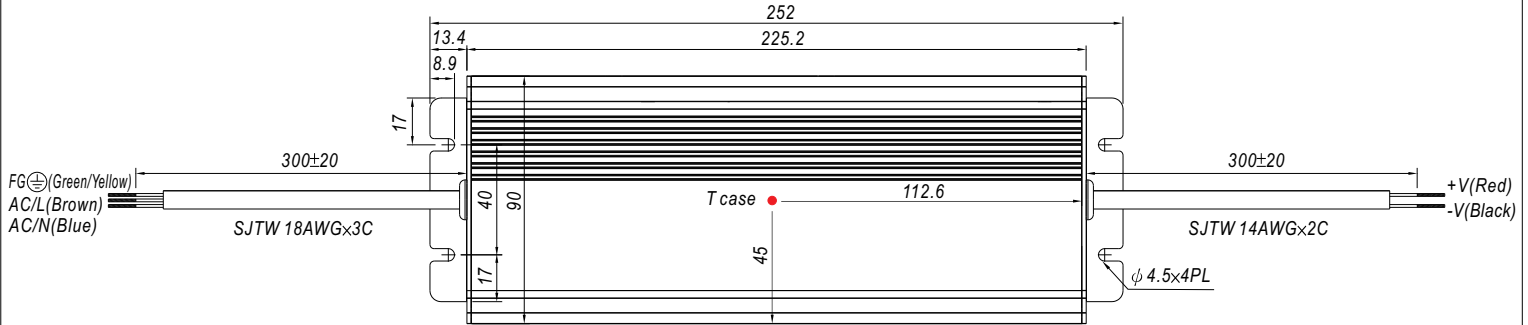
**SPECIFICATION**

MODEL	HLG-320H-12	HLG-320H-15	HLG-320H-20	HLG-320H-24	HLG-320H-30	HLG-320H-36	HLG-320H-42	HLG-320H-48	HLG-320H-54		
OUTPUT	DC VOLTAGE	12V	15V	20V	24V	30V	36V	42V	48V	54V	
	CONSTANT CURRENT REGION Note.4	6~12V	7.5~15V	10~20V	12~24V	15~30V	18~36V	21~42V	24~48V	27~54V	
	RATED CURRENT	22A	19A	15A	13.34A	10.7A	8.9A	7.65A	6.7A	5.95A	
	RATED POWER	264W	285W	300W	320.16W	321W	320.4W	321.3W	321.6W	321.3W	
	RIPPLE & NOISE (max.) Note.2	150mVp-p	150mVp-p	150mVp-p	150mVp-p	200mVp-p	250mVp-p	250mVp-p	250mVp-p	350mVp-p	
	VOLTAGE ADJ. RANGE Note.6	10.8~13.5V	13.5~17V	17~22V	21~26V	26~32V	32~39V	38~45V	43~52V	49~58V	
	CURRENT ADJ. RANGE	Can be adjusted by internal potentiometer or through output cable									
		11~22A	9.5~19A	7.5~15A	6.67~13.34A	5.35~10.7A	4.45~8.9A	3.8~7.65A	3.35~6.7A	2.97~5.95A	
	VOLTAGE TOLERANCE Note.3	±3.0%	±2.0%	±1.5%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	
LOAD REGULATION	±2.0%	±1.5%	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%		
SETUP, RISE TIME Note.8	2500ms, 80ms at full load 230VAC/115VAC										
HOLD UP TIME (Typ.)	15ms at full load 230VAC/115VAC										
INPUT	VOLTAGE RANGE Note.5	90~305VAC		127~431VDC							
	FREQUENCY RANGE	47~63Hz									
	POWER FACTOR (Typ.)	PF>0.98/115VAC, PF>0.95/230VAC, PF>0.94/277VAC at full load (Please refer to "Power Factor Characteristic" curve)									
	EFFICIENCY (Typ.) (230Vac)	91%	92.5%	93.5%	94%	94%	94.5%	95%	95%	95%	
	EFFICIENCY (Typ.) (277Vac)	91.5%	93%	94%	94.5%	94.5%	95%	95%	95%	95%	
	AC CURRENT (Typ.)	3.5A / 115VAC			1.65A / 230VAC		1.45A / 277VAC				
	INRUSH CURRENT(Typ.)	COLD START 75A/230VAC									
LEAKAGE CURRENT	<0.75mA / 277VAC										
PROTECTION	OVER CURRENT Note.4	95~108%									
	SHORT CIRCUIT	Protection type : Constant current limiting, recovers automatically after fault condition is removed.									
	OVER VOLTAGE	14~17V	17.5~21V	22.5~27V	27~33V	33~37V	40~46V	46.5~53V	53.5~60V	59~65V	
	OVER TEMPERATURE	100°C ±10°C (RTH2)									
	Protection type : Shut down and latch off o/p voltage, re-power on to recover										
ENVIRONMENT	WORKING TEMP.	-40~+70°C (Refer to "Derating Curve")									
	WORKING HUMIDITY	20~95% RH non-condensing									
	STORAGE TEMP., HUMIDITY	-40~+80°C, 10~95% RH									
	TEMP. COEFFICIENT	±0.03%/°C (0~50°C)									
	VIBRATION	10~500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes									
SAFETY & EMC	SAFETY STANDARDS Note.7	UL8750, CSA C22.2 No. 250.0-08, EN61347-1, EN61347-2-13 independent (except for HLG-320H C type), IP65 or IP67 approved ; Design refer to UL60950-1, TUV EN60950-1									
	WITHSTAND VOLTAGE	I/P-O/P:3.75KVAC I/P-FG:1.88KVAC O/P-FG:0.5KVAC									
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH									
	EMC EMISSION	Compliance to EN55015, EN55022 (CISPR22) Class B, EN61000-3-2 Class C (≥50% load) ; EN61000-3-3									
EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN61547, EN55024, light industry level (surge 4KV), criteria A										
OTHERS	MTBF	157.1Khrs min. MIL-HDBK-217F (25°C)									
	DIMENSION	252*90*43.8mm (L*W*H)(HLG-320H-Blank/A/B/D)				256*90*43.8mm (L*W*H)(HLG-320H-C)					
	PACKING	1.88Kg; 8pcs/16Kg/0.83CUFT									
NOTE	<ol style="list-style-type: none"> <li>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</li> <li>2. Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF &amp; 47uF parallel capacitor.</li> <li>3. Tolerance : includes set up tolerance, line regulation and load regulation.</li> <li>4. Constant current operation region is within 50% ~100% rated output voltage. This is the suitable operation region for LED related applications, but please reconfirm special electrical requirements for some specific system design.</li> <li>5. Derating may be needed under low input voltages. Please check the static characteristics for more details.</li> <li>6. Type A and type C only.</li> <li>7. Safety and EMC design refer to EN60598-1, subject CNS15233, GB7000.1, FCC part18.</li> <li>8. Length of set up time is measured at cold first start. Turning ON/OFF the power supply may lead to increase of the set up time.</li> <li>9. The power supply is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-qualify EMC Directive on the complete installation again.</li> <li>10. Refer to warranty statement.</li> </ol>										

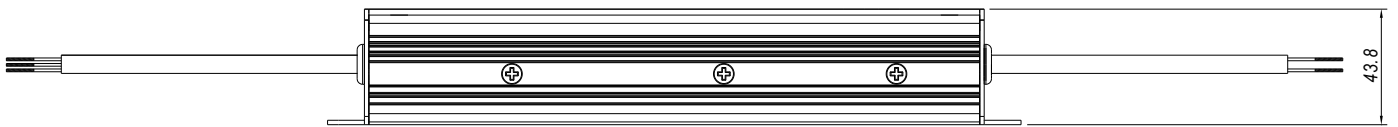
■ Mechanical Specification

Case No.202A Unit:mm

Blank:(HLG-320H)

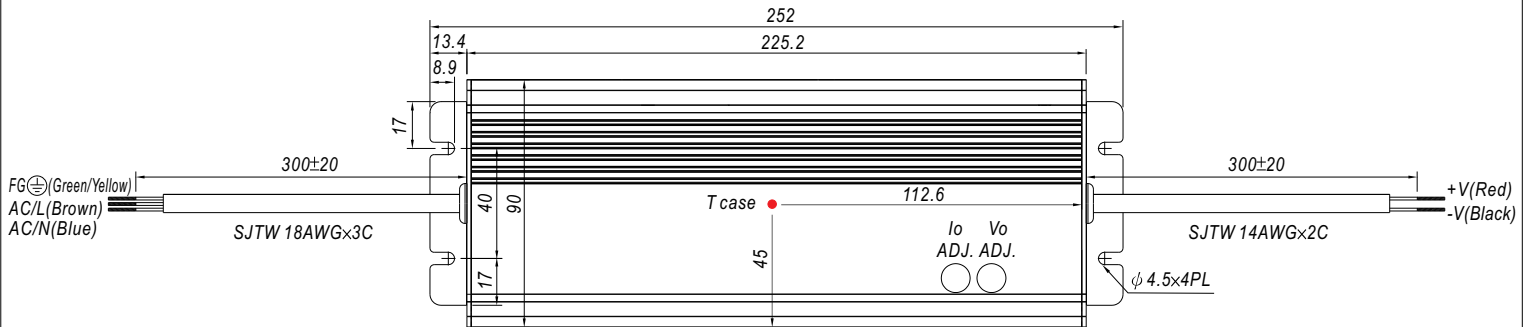


※ T case: Max. Case Temperature.

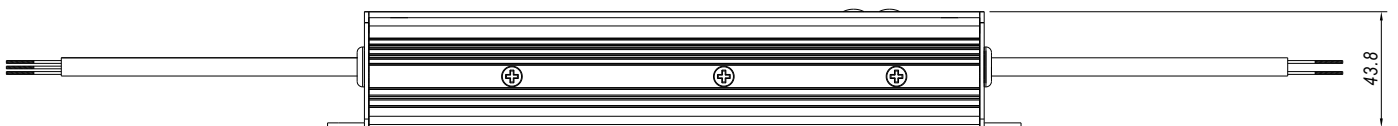


※ IP67 rated. Cable for I/O connection.

A Type:(HLG-320H- \_A)

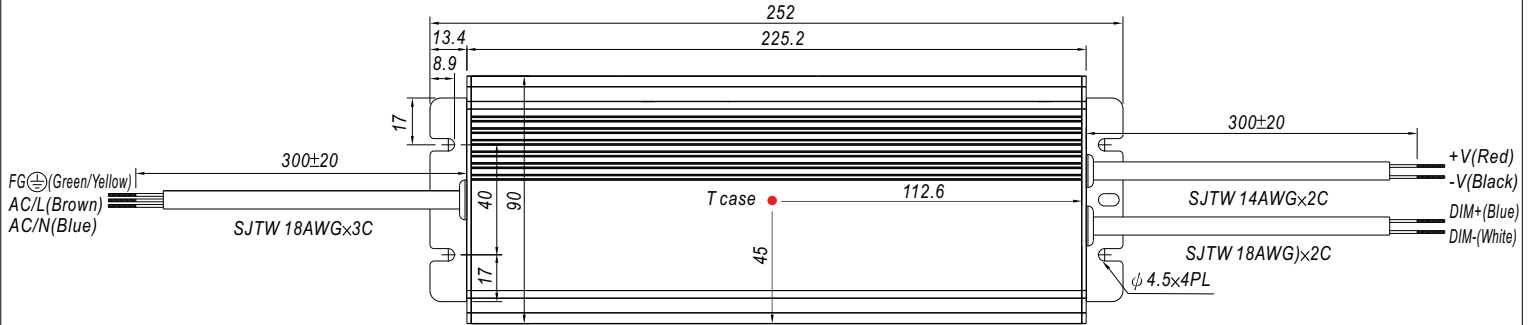


※ T case: Max. Case Temperature.

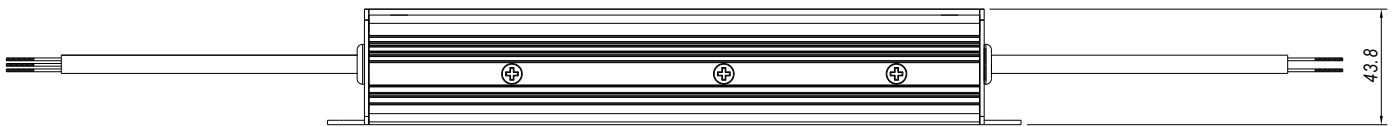


※ IP65 rated. Output voltage and constant current level can be adjusted through internal potentiometer.  
(Can access by removing the rubber stopper on the case.)

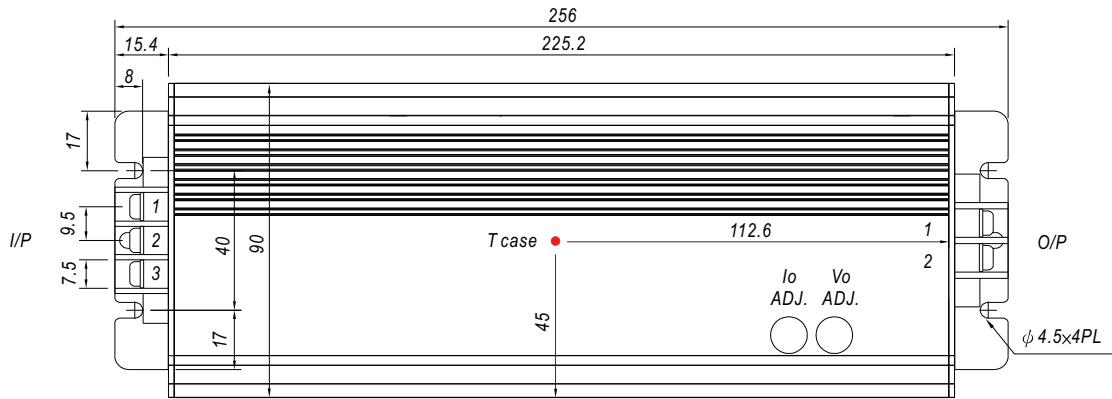
**B Type:(HLG-320H-\_B)**



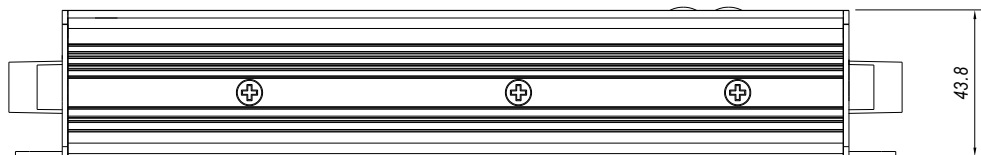
※ T case: Max. Case Temperature.



**C Type:(HLG-320H-\_C)**



※ T case: Max. Case Temperature.



※ Output voltage and constant current level can be adjusted through internal potentiometer.  
(Can access by removing the rubber stopper on the case.)

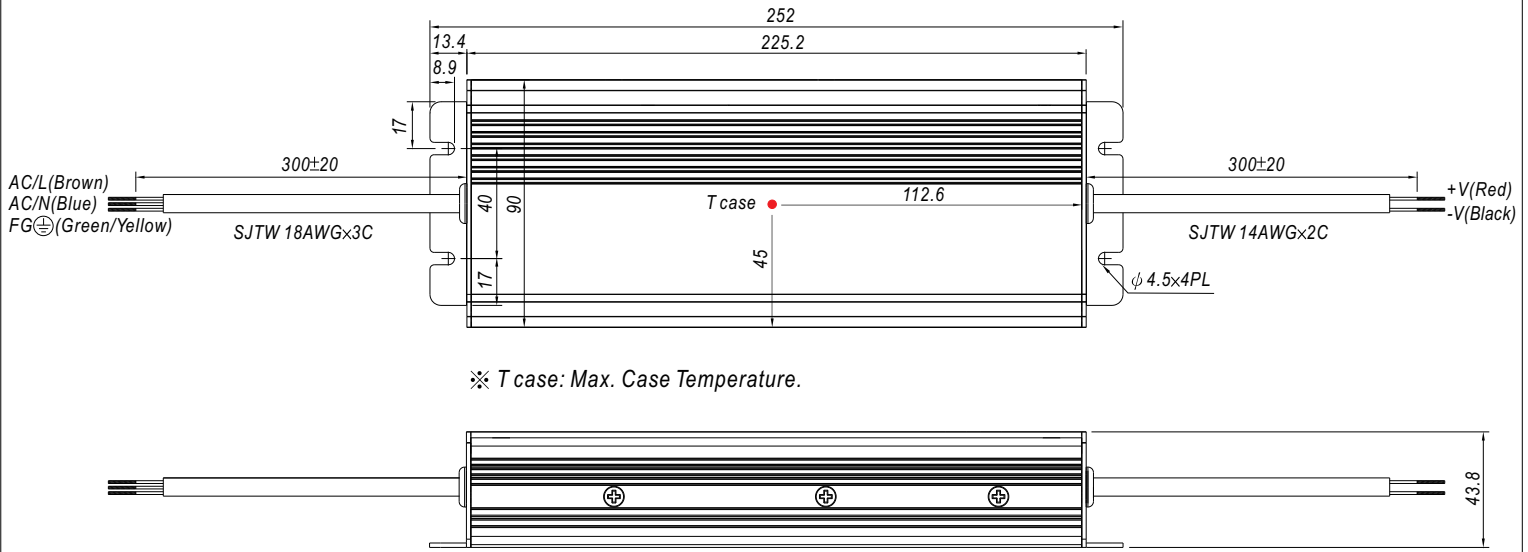
**AC Input Terminal Pin No. Assignment**

Pin No.	Assignment
1	FG $\perp$
2	AC/L
3	AC/N

**DC Output Terminal Pin No. Assignment**

Pin No.	Assignment
1	+V
2	-V

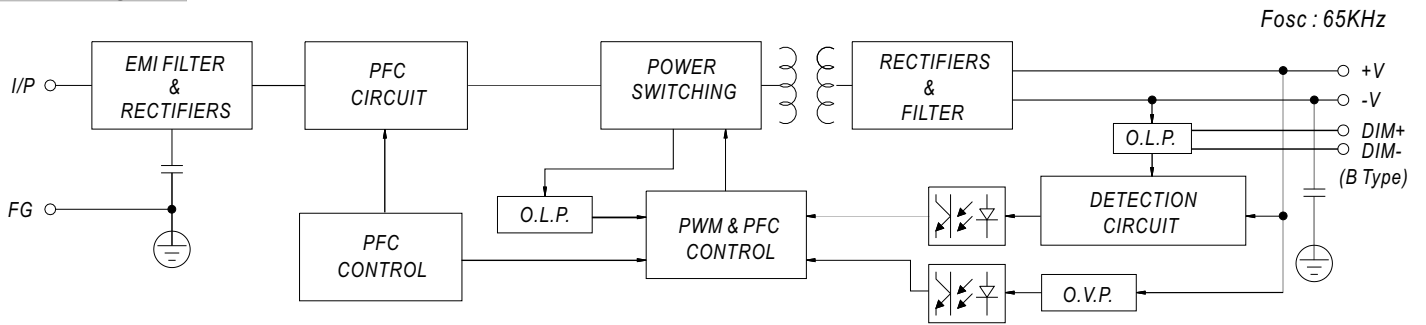
**D Type(option):(HLG-320H-\_D)**



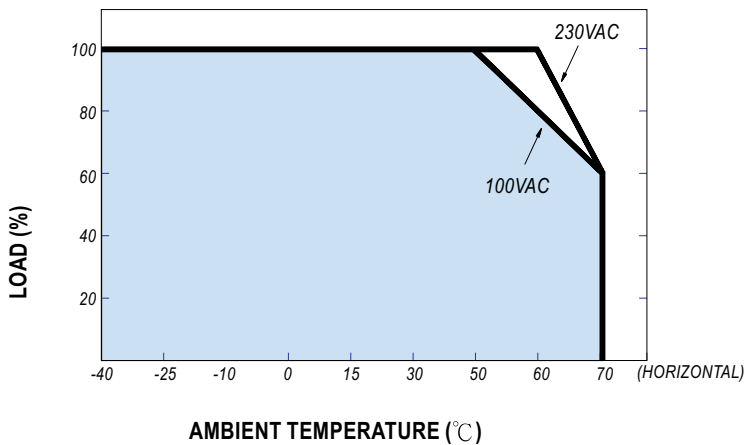
※ T case: Max. Case Temperature.

※ IP67 rated. Timer dimming function, contact MEAN WELL for details.

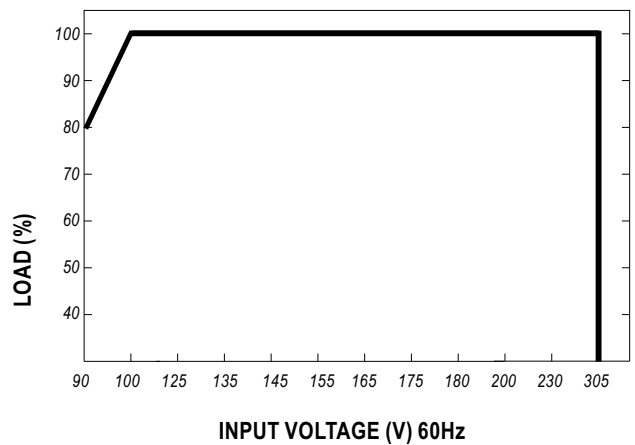
**Block Diagram**



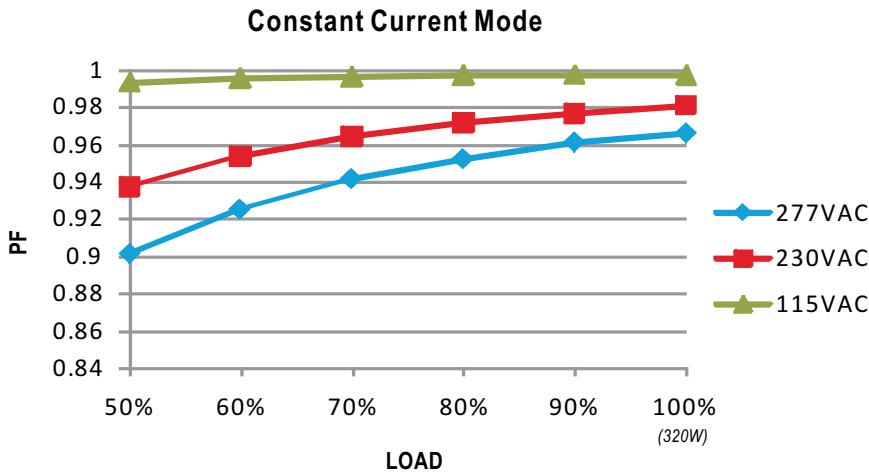
**Derating Curve**



**Static Characteristics**

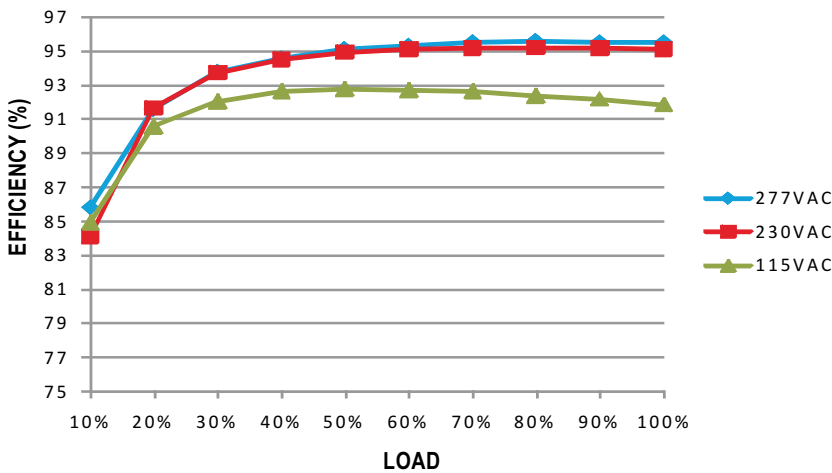


**Power Factor Characteristic**



**EFFICIENCY vs LOAD (48V Model)**

HLG-320H series possess superior working efficiency that up to 95% can be reached in field applications.

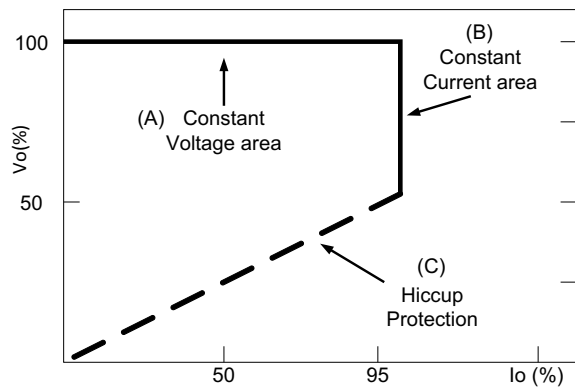


**DRIVING METHODS OF LED MODULE**

There are two major kinds of LED drive method "direct drive" and "with LED driver".

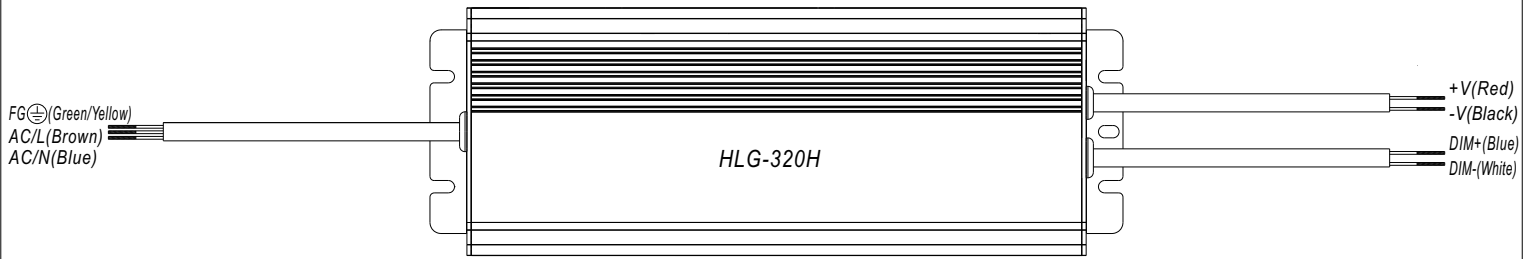
A typical LED power supply may either work in "constant voltage mode (CV) or constant current mode (CC)" to drive the LEDs.

Mean Well's LED power supply with CV+ CC characteristic can be operated at both CV mode (with LED driver, at area (A) and CC mode (direct drive, at area (B)).



Typical LED power supply I-V curve

**DIMMING OPERATION**



※ Built-in 3 in 1 dimming function, IP67 rated. Output constant current level can be adjusted through output cable by connecting a resistance or 1 ~ 10Vdc or 10V PWM signal between DIM+ and DIM-.

※ Please DO NOT connect "DIM-" to "-V".

※ Reference resistance value for output current adjustment (Typical)

Resistance value	Single driver	10KΩ	20KΩ	30KΩ	40KΩ	50KΩ	60KΩ	70KΩ	80KΩ	90KΩ	100KΩ	OPEN
	Multiple drivers (N=driver quantity for synchronized dimming operation)	10KΩ/N	20KΩ/N	30KΩ/N	40KΩ/N	50KΩ/N	60KΩ/N	70KΩ/N	80KΩ/N	90KΩ/N	100KΩ/N	-----
Percentage of rated current		10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	98%~108%

※ 1 ~ 10V dimming function for output current adjustment (Typical)

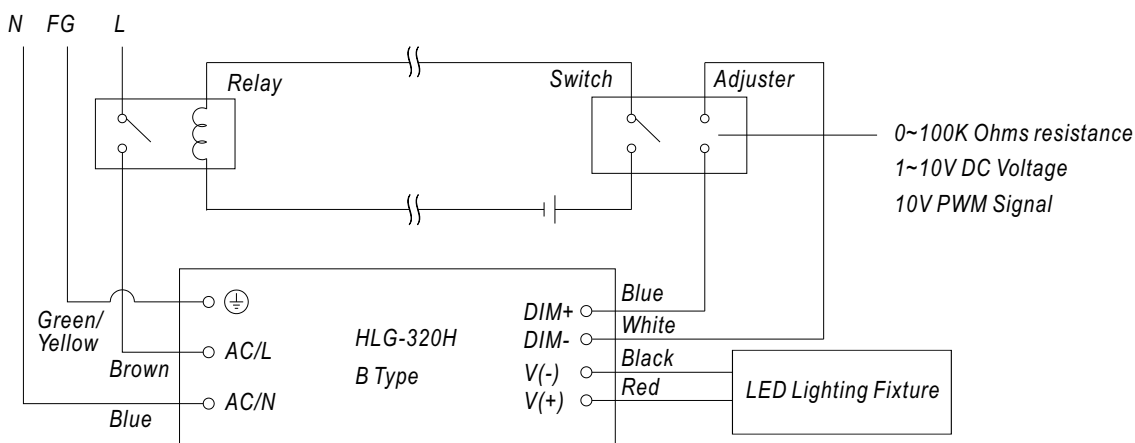
Dimming value	1V	2V	3V	4V	5V	6V	7V	8V	9V	10V	OPEN
Percentage of rated current	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	98%~108%

※ 10V PWM signal for output current adjustment (Typical): Frequency range :100HZ ~ 3KHz

Duty value	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	OPEN
Percentage of rated current	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	98%~108%

※ Using the built-in dimming function on B-type model can't turn the lighting fixture totally dark. Please refer to the connection method below to achieve 0% brightness of the lighting fixture connecting to the LED power supply unit.

Dimming connection diagram for turning the lighting fixture ON/OFF :



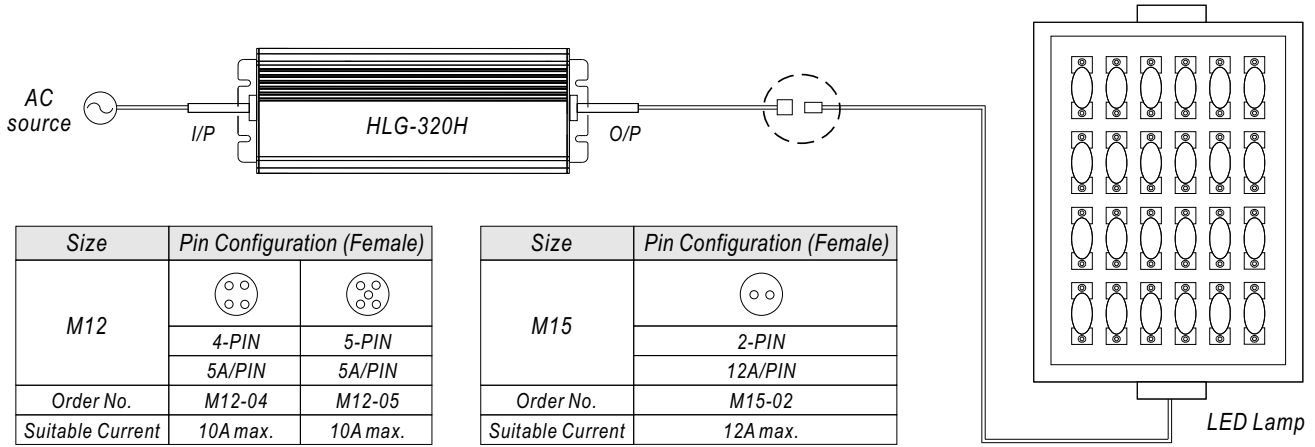
Using a switch and relay can turn ON/OFF the lighting fixture.

1. Output constant current level can be adjusted through output cable by connecting a resistance or 1~10Vdc or 10V PWM signal between DIM+ and DIM-.
2. The LED lighting fixture can be turned ON/OFF by the switch.

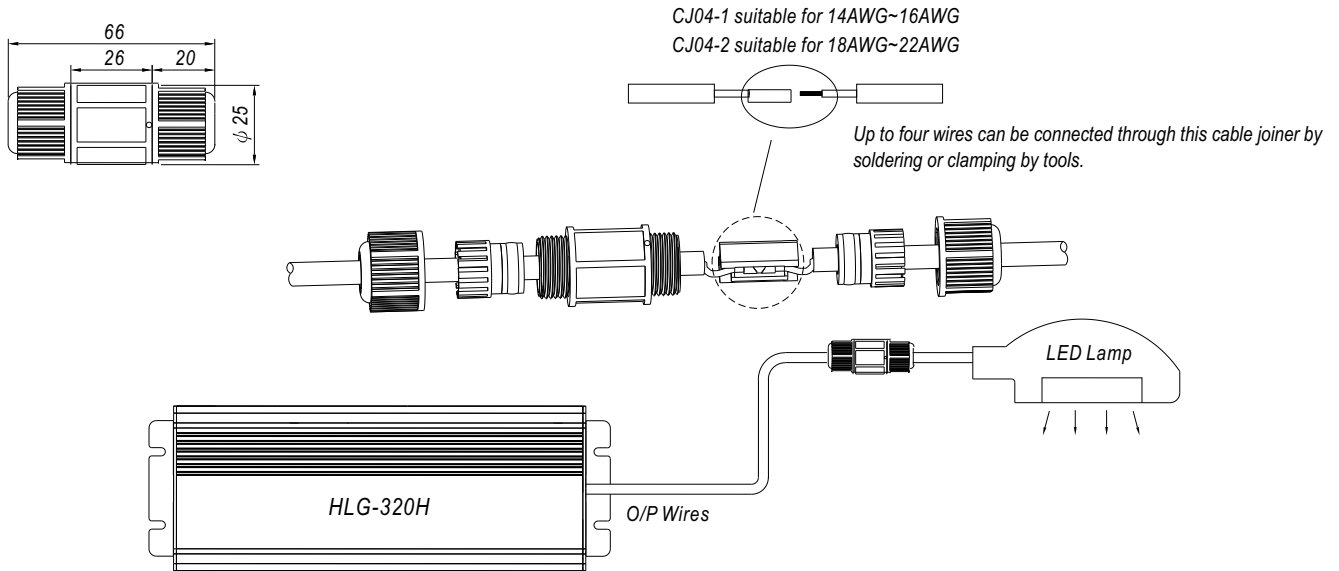
## ■ WATERPROOF CONNECTION

### ◎ Waterproof connector

Waterproof connector can be assembled on the output cable of HLG-320H to operate in dry/wet/damp or outdoor environment.



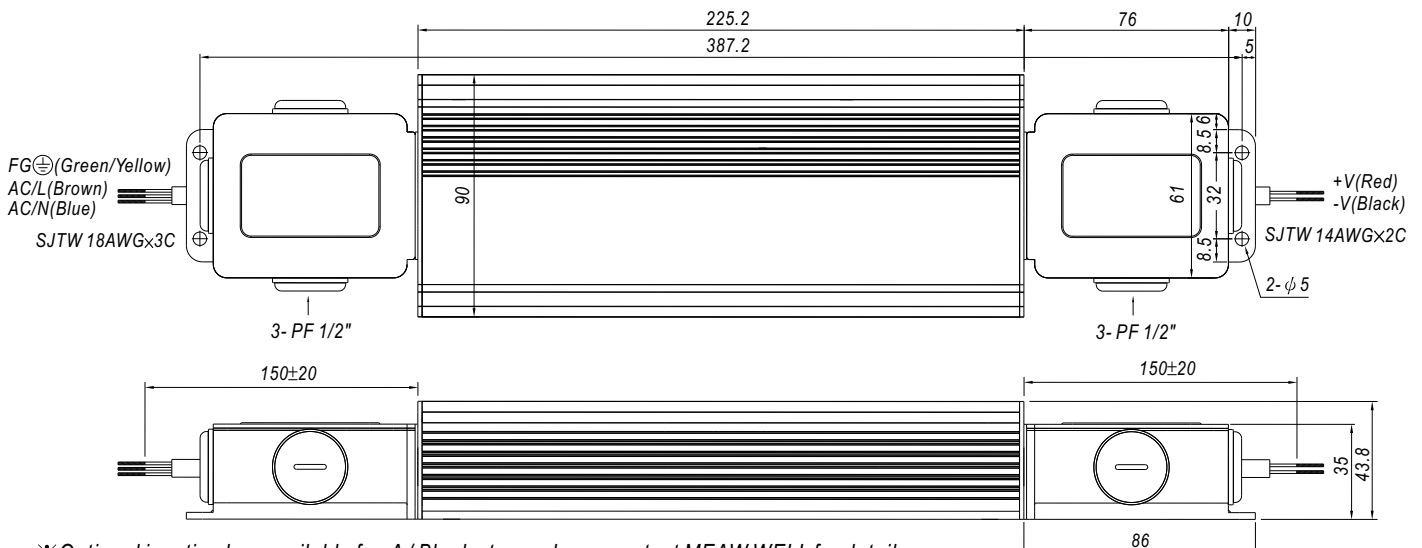
### ◎ Cable Joiner



※CJ04 cable joiner can be purchased independently for user's own assembly.

MEAN WELL order No. : CJ04-1, CJ04-2.

### ◎ Junction Box(Optional)



※Optional junction box available for A/Blank - type, please contact MEAN WELL for details.